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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/021,567	12/12/2001	Hidemichi Fujiwara	KAWAW19.001AUS	9280

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EXAMINER

NGUYEN, CHAU N

ART UNIT	PAPER NUMBER
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2831

DATE MAILED: 01/23/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/021,567

Applicant(s)

FUJIWARA, HIDEMICHI

Examiner

Chau N Nguyen

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-14 is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 09 December 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. in view of Nishikawa et al. (4,729,939).

Re claim 1, Sato et al. discloses a cable comprising a stranded wire (16) formed of a plurality of strands, at least one insulation layer (17) covering the stranded wire, and at least one shield (18) formed of a braid. Sato et al. also discloses the insulation layer and the shield layer, each comprising a single layer, the stranded wire being orderly covered by the insulation layer and the shield layer (re claim 5), the at least one insulation layer comprising two layers of first and second insulation layer while the shield layer comprising a single layer, and the stranded wire being orderly covered by the first insulation layer, the shield layer and the second insulation layer (re claim 6).

Sato et al. does not disclose each of the strands consisting essentially of

Zr: 0.05 to 0.4%, Fe: 0.05 to 0.2%, Si: 0.05 to 0.2%, a total amount of one or at least two kinds selected from a group consisting of Be, Sr, Mg, Ti and V: 0.003 to 0.05%, and balance being Al and inevitable impurities, nor the braid containing more than 99 wt.% of Al.

Nishikawa et al. discloses an aluminum alloy consisting essentially of Zr: 0.05 to 0.4%, Fe: 0.05 to 0.2%, Si: 0.05 to 0.2%, a total amount of one or at least two kinds selected from a group consisting of Be, Sr, Mg, Ti and V: 0.003 to 0.05%, and balance being Al and inevitable impurities (col. 2, lines 59-62). It would have been obvious to one skilled in the art to use the aluminum alloy taught by Nishikawa et al. for the strands of Sato et al. since the aluminum alloy taught by Nishikawa et al. has high mechanical strength.

Re claim 2, Sato et al. discloses an invention substantially as claimed except for each strand consisting essentially of Zr: 0.03 to 0.4%, Fe: 0.2 to 0.7%, Si: 0.2 to 0.6%, Mg: 0.35 to 1.2%, Cu: 0.05 to 0.4%, a total amount of at least one of two kinds of Ti and V: 0.003 to 0.05%, and balance being Al and inevitable impurities, and the braid containing more than 99wt.% of Al.

Nishikawa et al. discloses an aluminum alloy having high mechanical strength, the aluminum alloy consisting essentially of Zr: 0.03 to 0.4%, Fe: 0.2 to 0.7%, Si: 0.2 to 0.6%, Mg: 0.35 to 1.2%, Cu: 0.05 to 0.4%, a total amount of at

least one of two kinds of Ti and V: 0.003 to 0.05%, and balance being Al and inevitable impurities (col. 2, lines 59-63). It would have been obvious to one skilled in the art to use the aluminum alloy taught by Nishikawa et al. for the strands of Sato et al. since the material taught by Nishikawa et al. has high mechanical strength.

Although not specifically disclosed by Sato et al, it would have been obvious to one skilled in the art to use pure aluminum, with more than 99wt.% of Al, for the braid of Sato et al. since pure aluminum is well-known in the art for its highly electric conductivity.

The modified cable of Sato et al. can be used as an automobile power cable since it comprises structure and material as claimed.

3. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. in view of Nishikawa et al. as applied to claim 1 above, and further in view of Suzuki et al. (5,532,910).

Claims 3 and 4 additionally recite each Al alloy strand being coated on its outer surface with a Ni layer. Suzuki et al. discloses an invention relating to a lead-bonding wire. Suzuki et al. discloses that nickel is known for being used to coat a lead for corrosion prevention (col. 1, lines 24-26). It would have been

obvious to one skilled in the art to coat each aluminum alloy strand of Sato et al. with a nickel layer for corrosion prevention as taught by Suzuki et al.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. in view of Nishikawa et al. as applied to claim 1 above, and further in view of Nixon (4,408,089).

Nixon discloses a cable comprising at least one insulation layer comprising first, second and third insulation layer and at least one shield layer comprising two shield layers, wherein the central conductor is orderly covered by the first insulation layer, the first shield layer, the second insulation layer, the second shield layer, and the third insulation layer. It would have been obvious to one skilled in the art to additionally provide the cable of Sato with a second shield layer and a third insulation layer as taught by Nixon so that the modified cable of Sato et al. can be used in a relatively high frequency range.

5. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. in view of Nishikawa et al. as applied to claims 5 and 6 above, and further in view of Kenny et al. (5,514,837).

Kenny et al. discloses a cable comprising flame-resistant polyolefin resin as insulation material. It would have been obvious to one skilled in the art to use flame-resistant polyolefin resin as taught by Kenny et al. for the insulation layer of Sato et al. since the polyolefin resin taught by Kenny et al. is flame-retardant material.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. in view of Nishikawa et al. and Nixon as applied to claim 7 above, and further in view of Kenny et al.

Kenny et al. discloses a cable comprising flame-resistant polyolefin resin as insulation material. It would have been obvious to one skilled in the art to use flame-resistant polyolefin resin as taught by Kenny et al. for the insulation layer of Sato et al. since the polyolefin resin taught by Kenny et al. is flame-retardant material.

Allowable Subject Matter

7. Claims 11-14 are allowed.

Response to Arguments

8. Applicant's arguments and the Declaration under 37 CFR 1.131 filed on Dec. 9th 2002 with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claim 2, applicant argues that Nishikawa et al. relates to a photosensitive lithographic printing plate which is made of an aluminum alloy. Cu, Zn and Ti are unavoidable impurities in the aluminum alloy wherein Cu in an amount of 0.002 to 0.04 wt% is included in the aluminum alloy. Therefore, the Cu content range of the invention of claim 2 is different from that disclosed by Nishikawa et al. This argument is not found persuasive because Nishikawa et al. does disclose an aluminum alloy composed of Cu, regardless the Cu being called an unavoidable impurity, in an amount of 0.05 wt% (col. 2, line 61) as claimed in claim 2. Moreover, Nishikawa et al. is used only to support the position of using an aluminum alloy having high tensile strength, therefore Nishikawa et al. does not have to disclose the aluminum alloy being used as an automobile power cable.

Summary

9. Applicant's Declaration under 37 CFR 1.131 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS**

MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N Nguyen whose telephone number is 308-0693. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308 3682. The fax phone numbers for the organization where this application or proceeding is

Art Unit: 2831

assigned are (703) 305 3432 for regular communications and (703) 305 1341 for

After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Chau N Nguyen
Primary Examiner
Art Unit 2831

CN
January 15, 2003